

Patent Claims:

1. Master cylinder (1), especially for a controlled brake system, comprising at least one piston (3, 4; 53, 54) displaceable in a housing (2), which is sealed in relation to a pressure chamber (7, 8) by means of a sealing element (5, 6) arranged in an annular groove (23, 24) of the housing (2), said pressure chamber being connectable to an unpressurized supply chamber (11, 12) by means of transverse bores (9, 10; 50, 51) provided in the piston (3, 4; 53, 54),
c h a r a c t e r i z e d in that recesses (15, 16, 17) are arranged on an inside surface (13, 14) of the piston (3, 4; 53, 54) into which the transverse bores (9, 10) open.
2. Master cylinder as claimed in claim 1,
c h a r a c t e r i z e d in that the piston (3, 4; 53, 54) has on one side (36, 37; 55, 56) a substantially bowl-shaped wall (21, 22; 57, 58) with a first inside diameter (D1) and a second inside diameter (D2), with the second inside diameter (D2) being larger than the first inside diameter (D1), and in that the transverse bores (9, 10; 50, 51) are arranged in a zone between the first and second inside diameters (D1, D2).
3. Master cylinder as claimed in claim 2,

c h a r a c t e r i z e d in that the recesses (15, 16) are configured as a circumferential radial inside groove.

4. Master cylinder as claimed in claim 2,
c h a r a c t e r i z e d in that the recesses (17) are configured as tooth interspaces of a toothed profile on the inside surface (13, 14) of the piston (3, 4).
5. Master cylinder as claimed in claim 4,
c h a r a c t e r i z e d in that the recesses (17) extend in an axial direction until an end (19, 20) of the piston (3, 4).
6. Master cylinder as claimed in any one of claims 1 to 5,
c h a r a c t e r i z e d in that the transverse bores (9, 10) have a length of bore (L) and a diameter of bore (D), and the ratio of the length of bore (L) relative to the diameter of bore (D) has a value of roughly 1.
7. Master cylinder as claimed in claim 3,
c h a r a c t e r i z e d in that opposite transverse bores (50, 51) have parallel boundary surfaces (52).
8. Master cylinder as claimed in claim 7,
c h a r a c t e r i z e d in that the transverse bores (50, 51) have the shape of an oblong hole.

9. Master cylinder as claimed in claim 8,
c h a r a c t e r i z e d in that the transverse bores (50, 51) can be manufactured by shaping.
10. Master cylinder as claimed in claim 8,
c h a r a c t e r i z e d in that the transverse bores (50, 51) can be manufactured by displacing a drill in a radial direction relative to a longitudinal axis (M) of the piston (53, 54).
11. Master cylinder as claimed in claim 9 or 10,
c h a r a c t e r i z e d in that the transverse bores (50, 51) have a length of bore (L), a length L1) and a width (B), and the ratio of length of bore (L) to width (B) has a value of roughly 1.
12. Master cylinder as claimed in any one of the preceding claims,
c h a r a c t e r i z e d in that four to twenty-four transverse bores (9, 10; 50, 51) are arranged in an evenly distributed way at the periphery of the piston (3, 4; 53, 54).